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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/894,043  | 06/28/2001  | Ryuki Tachibana      | JP919990241US1          | 4969             |
| 7590 08/11/2004   |             |                      | EXAMINER                |                  |
| IBM CORPO   | RATION      | AKHAVANNIK, HUSSEIN  |                         |                  |
| INTELLECTUAL PROPERTY LAW DEPT. P.O. BOX 218 YORKTOWN HEIGHTS, NY 10598 |             |                      | ART UNIT                | PAPER NUMBER     |
|   |             |                      | 2621                    | $\sim$           |
|   |             |                      | DATE MAILED: 08/11/2004 | 4 /              |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.   | Applicant(s)   |  |  |  |
|---|---|--|--|--|--|
|   | 09/894,043  | TACHIBANA ET AL.   |  |  |  |
| Office Action Summary   | Examiner  | Art Unit   |  |  |  |
|   | Hussein Akhavannik  | 2621   |  |  |  |
| The MAILING DATE of this communication ap<br>Period for Reply   | opears on the cover sheet w   | ith the correspondence address   |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPITHE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a relif NO period for reply is specified above, the maximum statutory period.  - Failure to reply within the set or extended period for reply will, by statution and the set of extended period for reply will, by statution and the set of extended period for reply will, by statution and patent term adjustment. See 37 CFR 1.704(b). | 136(a). In no event, however, may a ply within the statutory minimum of thir d will apply and will expire SIX (6) MON tte, cause the application to become Al | reply be timely filed<br>ty (30) days will be considered timely.<br>ITHS from the mailing date of this communication.<br>BANDONED (35 U.S.C. § 133). |  |  |  |
| Status  |   |  |  |  |  |
| 1) Responsive to communication(s) filed on  |   |  |  |  |  |
|   | is action is non-final.   |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |   |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.   |   |  |  |  |  |
| Disposition of Claims   |   |  |  |  |  |
| 4)  Claim(s) <u>1-39</u> is/are pending in the applicatio 4a) Of the above claim(s) is/are withdres 5)  Claim(s) is/are allowed. 6)  Claim(s) is/are rejected. 7)  Claim(s) is/are objected to. 8)  Claim(s) <u>1-39</u> are subject to restriction and/or  | awn from consideration.   |  |  |  |  |
| Application Papers  |   |  |  |  |  |
| 9) The specification is objected to by the Examir   | ner.  |  |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.   |   |  |  |  |  |
| Applicant may not request that any objection to the   | e drawing(s) be held in abeya   | nce. See 37 CFR 1.85(a).   |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |   |  |  |  |  |
| 11) The oath or declaration is objected to by the E   | Examiner. Note the attache  | d Office Action or form PTO-152.   |  |  |  |
| Priority under 35 U.S.C. § 119  |   |  |  |  |  |
| a) Acknowledgment is made of a claim for foreig a) All b) Some * c) None of:  1. Certified copies of the priority documer 2. Certified copies of the priority documer 3. Copies of the certified copies of the pri application from the International Bures * See the attached detailed Office action for a list  | nts have been received.<br>nts have been received in A<br>ority documents have been<br>au (PCT Rule 17.2(a)).   | application No received in this National Stage   |  |  |  |
|   |   |  |  |  |  |
| Attachment(s)   |   |  |  |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)   |   | Summary (PTO-413)<br>s)/Mail Date  |  |  |  |
| Notice of Draftsperson's Patent Drawing Review (P10-948)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08  Paper No(s)/Mail Date   |   | nformal Patent Application (PTO-152)   |  |  |  |

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## **DETAILED ACTION**

## Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-4, 8-11, 25, 28-30, 33-34, and 37-38, drawn to embedding additive information in digital data using a frequency transformation unit, classified in class 380, subclass 201.
  - II. Claims 5-7, 12-14, 26-27, 31-32, 35-36, and 39, drawn to detecting additive information embedded in digital data using a bit detector connected to a synchronization unit, classified in class 380, subclass 204.
  - III. Claims 15-24, drawn to embedding N-bits electronic watermark data in digital data, classified in class 382, subclass 100.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II, and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as detecting additive information embedded in the frequency domain using a synchronization unit and a bit detector connected to the synchronization unit for detecting any synchronous watermark from any digital data. In the instant case, invention III has separate utility such as embedding N-bits electronic watermark data in digital data in either the spatial or frequency domain using numerous techniques (see species requirement). See MPEP § 806.05(d).

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

- 4. This application contains claims directed to the following patentably distinct species of the claimed invention: If the applicant elects group III to prosecute on the merits, then the Applicant will be further required to elect a species of the invention:
  - 1. Page 9, line 21 to page 10, line 5 of the specification corresponds to species 1, which includes claim 15.
  - 2. Page 10, lines 6-13 of the specification corresponds to species 2, which includes claim 16.
  - 3. Page 10, lines 14-21 of the specification corresponds to species 3, which includes claim 17.
  - 4. Page 10, line 22 to page 11, line 3 of the specification corresponds to species 4, which includes claim 18.
  - 5. Page 11, lines 4-12 of the specification corresponds to species 5, which includes claim 19.
  - 6. Page 11, lines 13-22 of the specification corresponds to species 6, which includes claims 20 and 22.
  - 7. Page 11, line 23 to page 12, line 5 of the specification corresponds to species 7, which includes claim 21 and 22.
  - 8. Page 12, lines 6-14 of the specification corresponds to species 8, which includes claim 23.

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9. Page 12, lines 15-24 of the specification corresponds to species 9, which includes claim 24.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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- 6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
- 7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein Akhavannik whose telephone number is (703)306-4049. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H. Boudreau can be reached on (703)305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hussein Akhavannik July 28, 2004

LEO BOUDREAU SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2600